

ABSTRACT

A needle having a shaft with a distal end defining a distal opening. The shaft has a longitudinal axis that extends through the distal opening and the distal opening has a projected area that is smaller than a cross-sectional area of a section of the shaft proximal to the distal end of the shaft. Also provided are methods of directly delivering a therapeutic agent to a target site using a Huber needle or pencil-point needle.

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